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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Ken Kuwabara

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EXAMINER

KHOO, FOONG LIN

ART UNIT

PAPER NUMBER

2664

DATE MAILED: 01/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/990,204	Applicant(s) KUWABARA ET AL.	
	Examiner F. Lin Khoo	Art Unit 2664	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 October 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10-12 and 17-20 is/are allowed.
- 6) ☐ Claim(s) 1,2,4-9,13-16 is/are rejected.
- 7) ☒ Claim(s) 3 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 2, 6, 7, 13, 17 are rejected under 35 U.S.C. 102(e) as being anticipated by Zhang et al. (U.S. Patent No. 6,396,833)

Regarding Claim 1, Zhang et al. discloses in a router containing a plurality of forwarding tables (per user routing tables) , a method of packet forwarding, comprising: receiving a packet at an ingress interface (col 2, lines 49-50); classifying the received packet based on at least a first field value (Fig. 4 (step 150) source address) contained in the header of the packet (Fig. 4 (step 152)); associating one of the plurality of forwarding tables to the packet according to its classification (Fig. 4 (step 152), col 4, lines 44-49 searches through one or more of the per-user routing tables based on user classification); performing a lookup operation in the associated forwarding table according to at least a

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second field value (Fig. 4 (step 154) destination address) contained in the header of the packet (Fig. 4 (step 156), col 4, lines 50-54);

determining an egress interface based on the lookup operation (Fig. 4 (step 158), col 4, lines 54-56); and

transmitting the received packet from the determined egress interface (Fig. 4 (step 160), col 4, lines 56-58. A matching network may be determined by examining the network identification as shown in Fig. 6. Fig. 7 shows "to matching network" which is associated with the egress interface).

Regarding Claim 2, Zhang et al. discloses wherein the step of classifying comprises the substep of determining whether the first field value meets one or more criteria ((Fig. 4 (step 152), col 4, lines 44-49 searches through one or more of the per-user routing tables based on user classification).

Regarding Claim 6, Zhang et al. discloses in a networking device, a method of forwarding packets, comprising:

classifying a received packet based on information contained in the packet (col 2, lines 49-57)

selecting one of a plurality of forwarding tables based on the classification of the received packet (Abstract, lines 4-7);

performing a lookup operation using the selected forwarding table (col 4, lines 50-54);

and

determining an egress interface for the packet based on the performed lookup operation (Fig. 4 (step 158), col 4, lines 54-56. A matching network may be determined by examining the network identification as shown in Fig. 6. Fig. 7 shows "to matching network" which is associated with the egress interface).

Regarding Claim 7, Zhang et al. discloses a method of configuring a networking device, comprising:

generating a first forwarding table including information identifying a first plurality of egress interface ports (Fig. 4, (steps 150 and 152) wherein the first forwarding table can be associated with the first user table. See Fig. 6; col 2, lines 4-6; col 2, line 66 through col 3, line 8. Each user has their own routing table in the per user routing table. The network ids (element 258) in Fig. 6 identify a plurality of egress interface ports. The first user table corresponds to the first forwarding table with a plurality of egress interface ports);

generating a second forwarding table including information identifying a second plurality of egress interface ports (Fig. 4, (steps 150 and 152) wherein the second forwarding table can be associated with the second user table. See Fig. 6; col 2, lines 4-6, col 2, line 66 through col 3, line 8. Each user has their own routing table in the per user routing table. The network ids (element 258) in Fig. 6 identify a plurality of egress interface ports. The second user table corresponds to the second forwarding table with a plurality of egress interface ports);

programming a filter to initiate a lookup operation in the first forwarding table if a first

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field value (Fig. 4, source address) of a received packet meets one or more conditions of a first set of conditions (first set of conditions can be associated with the criteria of meeting the source address of the first user);

programming the filter to initiate a lookup operation in the second forwarding table if the first field value (Fig. 4, source address) meets one or more conditions of a second set of conditions (second set of conditions can be associated with the criteria of meeting the source address of the second user).

Regarding Claim 13, Zhang et al. discloses a memory (gateway) for storing a first forwarding table and a second forwarding table, the first forwarding table and the second forwarding table including information identifying a plurality of egress interfaces (it is inherent that the gateway is a network device having memory capable of storing the first and second forwarding tables, wherein the first forwarding table can be associated with the first user table and the second forwarding table can be associated with the second user table - col 2, lines 49-50. See Fig. 6; col 2, lines 4-6, col 2, line 66 through col 3, line 8. Each user has their own routing table in the per user routing table. The network ids (element 258) in Fig. 6 identify a plurality of egress interfaces); and a filter programmed to initiate a lookup operation in the first forwarding table if a first field value (Fig. 4, source address) of a header contained in a received packet meets one or more conditions of a first set of conditions (first set of conditions can be associated with the criteria of meeting the source address of the first user) and to initiate a lookup operation in the second forwarding table if the first field value meets one or

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more conditions of a second set of conditions (second set of conditions can be associated with the criteria of meeting the source address of the second user).

Regarding Claim 16, Zhang et al. discloses further comprising a plurality of ingress interfaces for receiving packets (Fig. 2, elements 84 and 90 is connected to a plurality of ingress interfaces), the plurality of egress interfaces (Fig. 2, elements 92, 96, 94 (to matching networks) is connected to a plurality of egress interfaces) are for transmitting packets, and wherein each of the lookup operations results in an identification of an egress interface from which the received packet is to be transmitted (Fig. 4 (step 160), col 4, lines 56-58. A matching network may be determined by examining the network identification as shown in Fig. 6. Fig. 7 shows "to matching network" which is associated with the egress interfaces).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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4. Claims 4, 5, 8, 9, 14, 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhang et al. (U.S. Patent No. 6,396,833) in view of Nomura et al. (U.S. Pub No. 2001/0019554).

Regarding Claims 4 and 5, Zhang et al. fails to disclose wherein the first forwarding table contains an entry corresponding to a first label switched path (claim 4) and a second label switched path (claim 5). Regarding Claim 8, Zhang et al. fails to disclose wherein the step of generating a first forwarding table comprises the substep of generating a first forwarding table containing an entry corresponding to a first label switched path. Regarding Claim 9, Zhang et al. fails to disclose wherein the step of generating a second forwarding table comprises the substep of generating a second forwarding table containing an entry corresponding to a second label switched path. Regarding Claim 14, Zhang et al. fails to disclose wherein the first forwarding table contains an entry corresponding to a first label switched path. Regarding Claim 15, Zhang et al. fails to disclose wherein the second forwarding table contains an entry corresponding to a second label switched path.

Nomura et al. discloses a label switch network which includes the mapping of IP packets (L3) sent by an IP network adjacent to the MPLS network with LSPs (Label Switched Paths) of L2 paths (paragraph [0067]). Therefore, it would have been obvious to one skilled in the art to use the label switch path method as taught by Nomura et al. in the per-user routing tables used by Zhang et al. to realize an optimal route setup for

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every flow, load sharing and bypassing failures as suggested by Nomura et al.

(paragraph [0004]).

Allowable Subject Matter

5. Claim 3 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 10-12 and 17-20 are allowed.

Response to Arguments

6. Examiner has considered the arguments the applicant has presented for the rejection of claims 1, 6. Examiner respectfully disagrees with applicant's arguments. Zhang et al. discloses the limitation "determining an egress interface" based on the lookup operation. Furthermore, the Examiner clarified Zhang et al.'s disclosure of the limitation "determining an egress interface".

Examiner has considered the arguments the applicant has presented for the amendment of claim 7. Examiner has determined the new limitations "generating a first forwarding table including information identifying a first plurality of egress interface; generating a second forwarding table including information identifying a second plurality of egress interface ports" are disclosed by Zhang et al.

Examiner has considered the arguments the applicant has presented for the amendment of claim 13. Examiner has determined the new limitations "the first forwarding table and the second forwarding table including information identifying a plurality of egress interfaces" are disclosed by Zhang et al.

Examiner has considered the arguments the applicant has presented traversing the rejection of claims 4, 5, 8, 9, 14, 15, 18 and 19. The motivation to combine Zhang et al. and Nomura et al. has been further clarified as suggested by Nomura et al.

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Therefore, applicant's arguments have been fully considered but they are deemed not persuasive.

Examiner has reconsidered claim 16 and has determined that Zhang et al. do disclose all the limitation.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

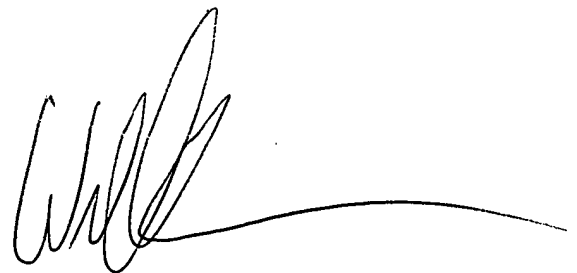
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to F. Lin Khoo whose telephone number is 571-272-5508. The examiner can normally be reached on flex time.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on 571-272-3134. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'W. Chin', followed by a long horizontal line extending to the right.

WELLINGTON CHIN
SENIOR PATENT EXAMINER